



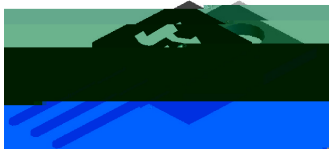
JMH65R110ACFD  
JMH65R110AEFD

650V SuperJunction Power MOSFET

Features

Product Summary

| Parameter | Value | Unit |
|-----------|-------|------|
|           |       |      |
|           |       |      |
|           |       |      |
|           |       | Ω    |
|           |       |      |

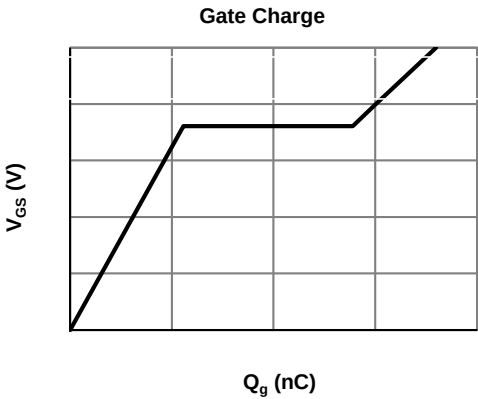
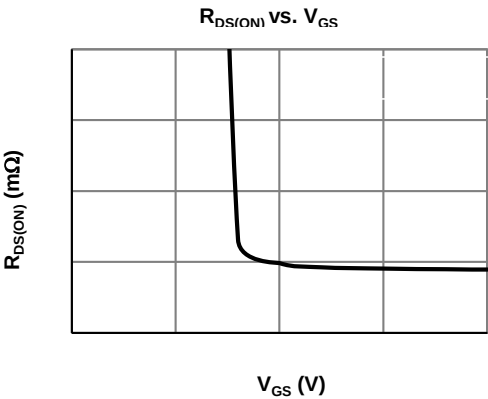


Ordering Information

| Device |  |  |  |  |  |  |  |
|--------|--|--|--|--|--|--|--|
|        |  |  |  |  |  |  |  |
|        |  |  |  |  |  |  |  |

Absolute Maximum Ratings

| Parameter |  |          | Value |    |
|-----------|--|----------|-------|----|
|           |  |          |       |    |
|           |  | GS       |       | V  |
|           |  |          |       |    |
|           |  |          |       |    |
|           |  | IDM      |       | A  |
|           |  | IAS      |       | A  |
|           |  | EAS      |       | mJ |
|           |  |          |       |    |
|           |  |          |       |    |
|           |  | TJ, TSTG |       | °C |



Electrical Characteristics

| Parameter         | Symbol | Conditions | Min. | Typ. | Max. | Unit     |
|-------------------|--------|------------|------|------|------|----------|
| STATIC PARAMETERS |        |            |      |      |      |          |
|                   |        |            |      |      |      | $\mu$    |
|                   |        |            |      |      |      | $\mu$    |
|                   |        |            |      |      |      | $\Omega$ |
|                   |        |            |      |      |      | $\Omega$ |

DYNAMIC PARAMETERS <sup>(5)</sup>

|                                     |  |  |  |  |  |  |
|-------------------------------------|--|--|--|--|--|--|
| SWITCHING PARAMETERS <sup>(5)</sup> |  |  |  |  |  |  |
|-------------------------------------|--|--|--|--|--|--|

| Parameter | Symbol   | Unit |
|-----------|----------|------|
|           | $\theta$ |      |
|           | $\theta$ |      |

Notes:

## Typical Electrical & Thermal Characteristics

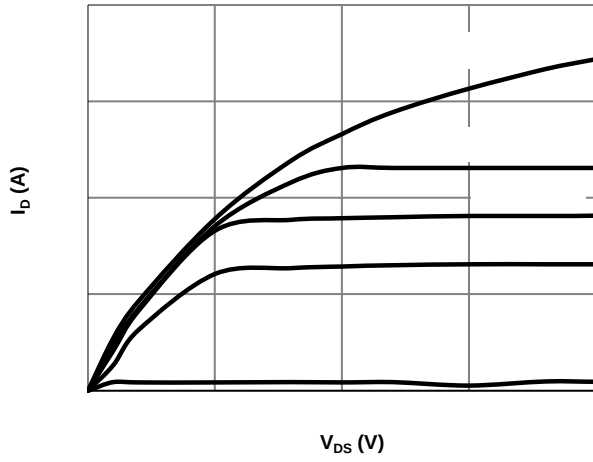


Figure 1: Saturation Characteristics

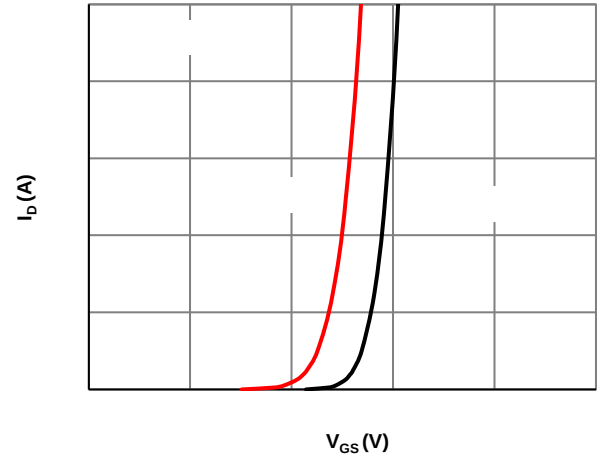


Figure 2: Transfer Characteristics

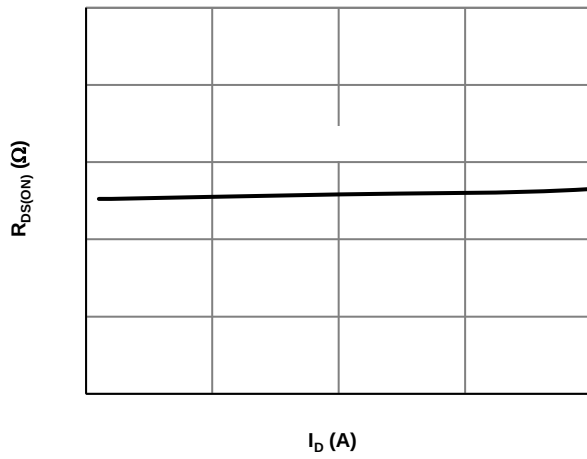


Figure 3:  $R_{DS(ON)}$  vs. Drain Current

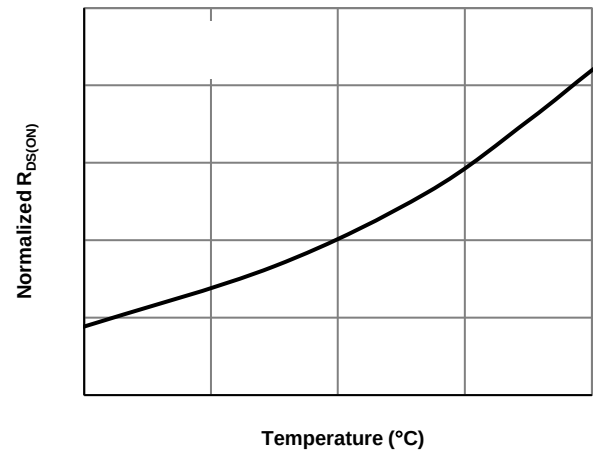


Figure 4:  $R_{DS(ON)}$  vs. Junction Temperature

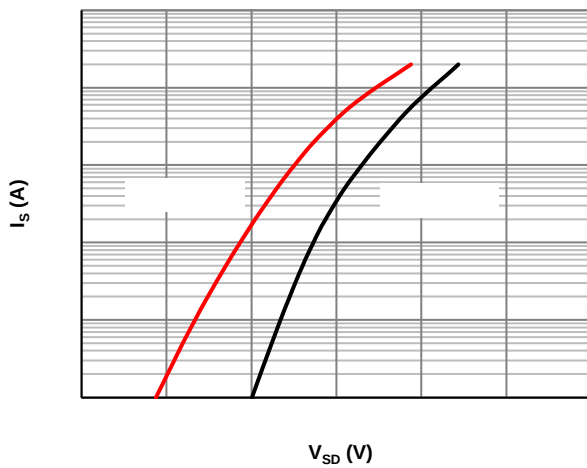


Figure 5: Body-Diode Characteristics

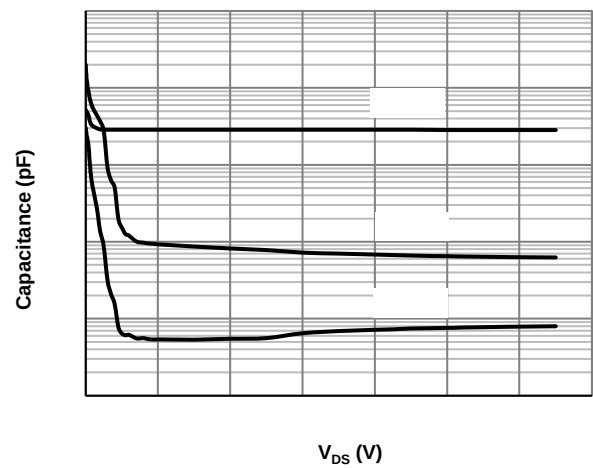


Figure 6: Capacitance Characteristics

# Typical Electrical & Thermal Characteristics

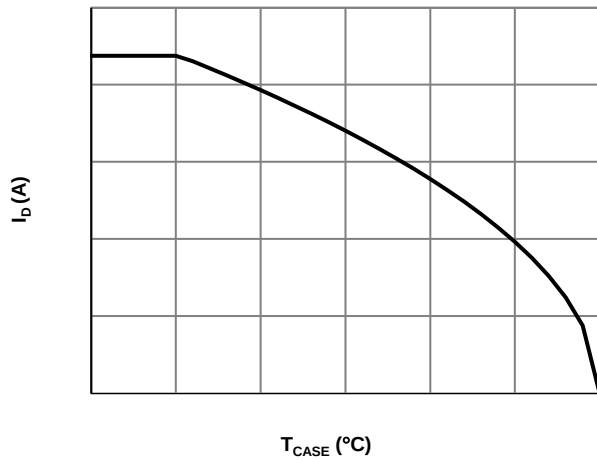


Figure 7: Current De-rating

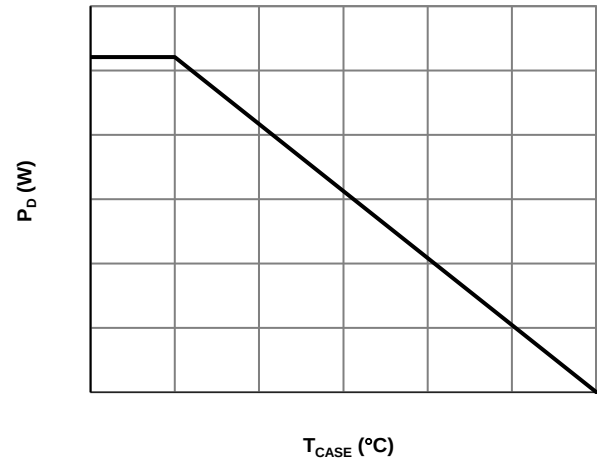


Figure 8: Power De-rating

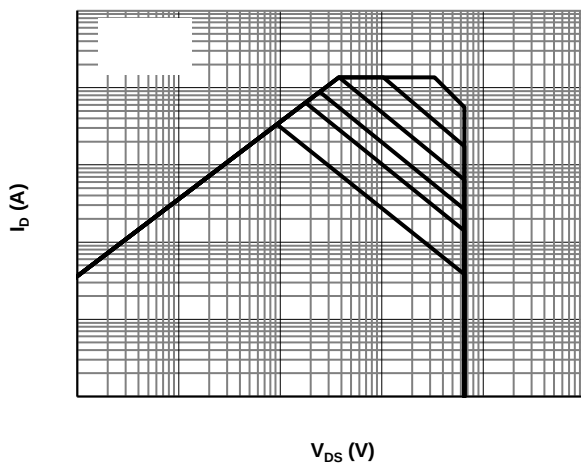
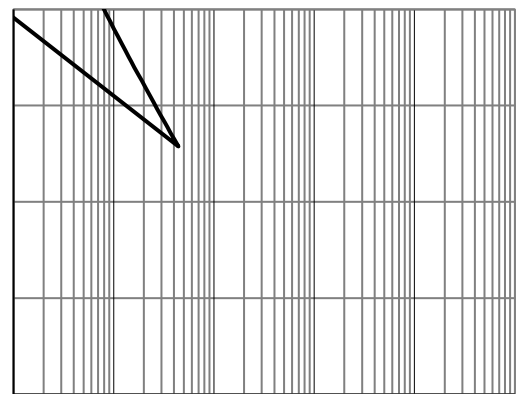
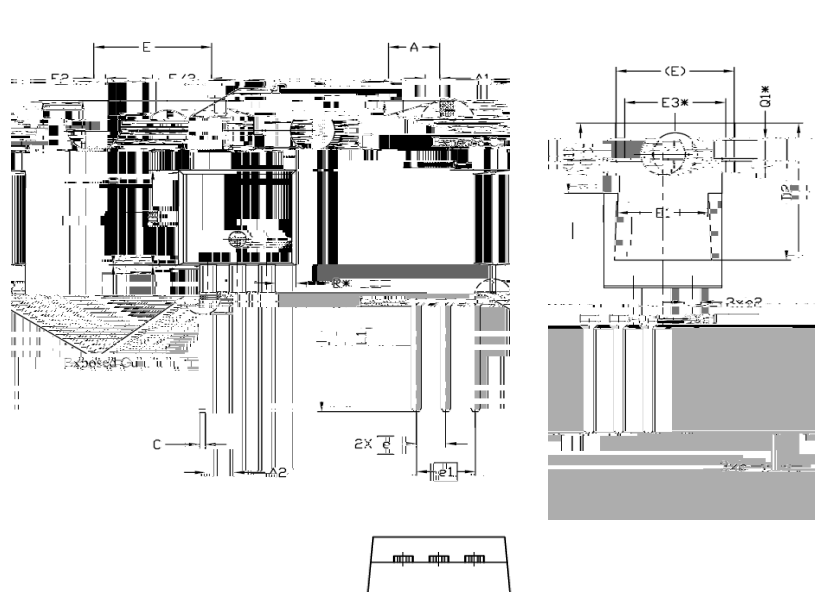


Figure 9: Maximum Safe Operating Area





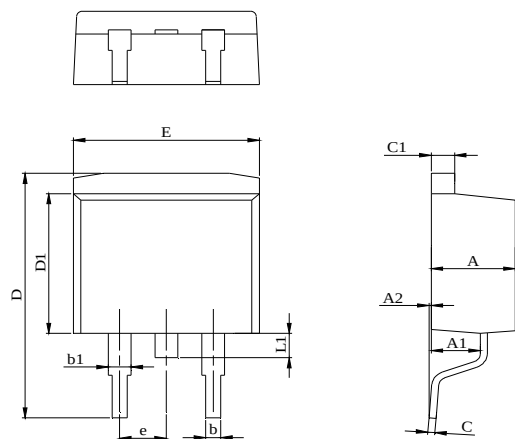
## TO-220-3L Package Information



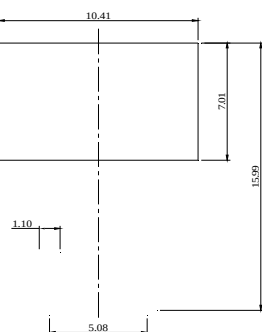
| SYMBOL | DIMENSIONS (mm) |       |       |
|--------|-----------------|-------|-------|
|        | MIN             | NOM   | MAX   |
| A      | 4.24            | 4.44  | 4.64  |
| A1     | 1.15            | 1.27  | 1.40  |
| A2     | 2.30            | 2.48  | 2.70  |
| b      | 0.70            | 0.80  | 0.90  |
| b1     | 1.20            | 1.55  | 1.75  |
| b2     | 1.20            | 1.45  | 1.70  |
| c      | 0.40            | 0.50  | 0.60  |
| D      | 14.70           | 15.37 | 16.00 |
| D1     | 8.82            | 8.92  | 9.02  |
| D2     | 12.43           | 12.73 | 13.03 |
| E      | 9.50            | 9.60  | 9.70  |
| E1     | 2.54            | 2.54  | 2.54  |
| E2     | 2.54            | 2.54  | 2.54  |
| E3     | 2.54            | 2.54  | 2.54  |
| L      | 3.81            | 3.81  | 3.81  |
| L1     | 3.81            | 3.81  | 3.81  |
| L2     | 3.81            | 3.81  | 3.81  |
| L3     | 3.81            | 3.81  | 3.81  |
| L4     | 3.81            | 3.81  | 3.81  |
| L5     | 3.81            | 3.81  | 3.81  |
| L6     | 3.81            | 3.81  | 3.81  |
| L7     | 3.81            | 3.81  | 3.81  |
| L8     | 3.81            | 3.81  | 3.81  |
| L9     | 3.81            | 3.81  | 3.81  |
| L10    | 3.81            | 3.81  | 3.81  |
| L11    | 3.81            | 3.81  | 3.81  |
| L12    | 3.81            | 3.81  | 3.81  |
| L13    | 3.81            | 3.81  | 3.81  |
| L14    | 3.81            | 3.81  | 3.81  |
| L15    | 3.81            | 3.81  | 3.81  |
| L16    | 3.81            | 3.81  | 3.81  |
| L17    | 3.81            | 3.81  | 3.81  |
| L18    | 3.81            | 3.81  | 3.81  |
| L19    | 3.81            | 3.81  | 3.81  |
| L20    | 3.81            | 3.81  | 3.81  |
| L21    | 3.81            | 3.81  | 3.81  |
| L22    | 3.81            | 3.81  | 3.81  |
| L23    | 3.81            | 3.81  | 3.81  |
| L24    | 3.81            | 3.81  | 3.81  |
| L25    | 3.81            | 3.81  | 3.81  |
| L26    | 3.81            | 3.81  | 3.81  |
| L27    | 3.81            | 3.81  | 3.81  |
| L28    | 3.81            | 3.81  | 3.81  |
| L29    | 3.81            | 3.81  | 3.81  |
| L30    | 3.81            | 3.81  | 3.81  |
| L31    | 3.81            | 3.81  | 3.81  |
| L32    | 3.81            | 3.81  | 3.81  |
| L33    | 3.81            | 3.81  | 3.81  |
| L34    | 3.81            | 3.81  | 3.81  |
| L35    | 3.81            | 3.81  | 3.81  |
| L36    | 3.81            | 3.81  | 3.81  |
| L37    | 3.81            | 3.81  | 3.81  |
| L38    | 3.81            | 3.81  | 3.81  |
| L39    | 3.81            | 3.81  | 3.81  |
| L40    | 3.81            | 3.81  | 3.81  |
| L41    | 3.81            | 3.81  | 3.81  |
| L42    | 3.81            | 3.81  | 3.81  |
| L43    | 3.81            | 3.81  | 3.81  |
| L44    | 3.81            | 3.81  | 3.81  |
| L45    | 3.81            | 3.81  | 3.81  |
| L46    | 3.81            | 3.81  | 3.81  |
| L47    | 3.81            | 3.81  | 3.81  |
| L48    | 3.81            | 3.81  | 3.81  |
| L49    | 3.81            | 3.81  | 3.81  |
| L50    | 3.81            | 3.81  | 3.81  |
| L51    | 3.81            | 3.81  | 3.81  |
| L52    | 3.81            | 3.81  | 3.81  |
| L53    | 3.81            | 3.81  | 3.81  |
| L54    | 3.81            | 3.81  | 3.81  |
| L55    | 3.81            | 3.81  | 3.81  |
| L56    | 3.81            | 3.81  | 3.81  |
| L57    | 3.81            | 3.81  | 3.81  |
| L58    | 3.81            | 3.81  | 3.81  |
| L59    | 3.81            | 3.81  | 3.81  |
| L60    | 3.81            | 3.81  | 3.81  |
| L61    | 3.81            | 3.81  | 3.81  |
| L62    | 3.81            | 3.81  | 3.81  |
| L63    | 3.81            | 3.81  | 3.81  |
| L64    | 3.81            | 3.81  | 3.81  |
| L65    | 3.81            | 3.81  | 3.81  |
| L66    | 3.81            | 3.81  | 3.81  |
| L67    | 3.81            | 3.81  | 3.81  |
| L68    | 3.81            | 3.81  | 3.81  |
| L69    | 3.81            | 3.81  | 3.81  |
| L70    | 3.81            | 3.81  | 3.81  |
| L71    | 3.81            | 3.81  | 3.81  |
| L72    | 3.81            | 3.81  | 3.81  |
| L73    | 3.81            | 3.81  | 3.81  |
| L74    | 3.81            | 3.81  | 3.81  |
| L75    | 3.81            | 3.81  | 3.81  |
| L76    | 3.81            | 3.81  | 3.81  |
| L77    | 3.81            | 3.81  | 3.81  |
| L78    | 3.81            | 3.81  | 3.81  |
| L79    | 3.81            | 3.81  | 3.81  |
| L80    | 3.81            | 3.81  | 3.81  |
| L81    | 3.81            | 3.81  | 3.81  |
| L82    | 3.81            | 3.81  | 3.81  |
| L83    | 3.81            | 3.81  | 3.81  |
| L84    | 3.81            | 3.81  | 3.81  |
| L85    | 3.81            | 3.81  | 3.81  |
| L86    | 3.81            | 3.81  | 3.81  |
| L87    | 3.81            | 3.81  | 3.81  |
| L88    | 3.81            | 3.81  | 3.81  |
| L89    | 3.81            | 3.81  | 3.81  |
| L90    | 3.81            | 3.81  | 3.81  |
| L91    | 3.81            | 3.81  | 3.81  |
| L92    | 3.81            | 3.81  | 3.81  |
| L93    | 3.81            | 3.81  | 3.81  |
| L94    | 3.81            | 3.81  | 3.81  |
| L95    | 3.81            | 3.81  | 3.81  |
| L96    | 3.81            | 3.81  | 3.81  |
| L97    | 3.81            | 3.81  | 3.81  |
| L98    | 3.81            | 3.81  | 3.81  |
| L99    | 3.81            | 3.81  | 3.81  |
| L100   | 3.81            | 3.81  | 3.81  |

## TO-263-3L Package Information

### Package Outline



### Recommend Soldering Footprint



DIMENSIONS: MILLIMETERS